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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,418	10/30/2003	Christian Fleischhacker	48924-01050	7218

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EXAMINER	
NGUYEN, MINH T	
ART UNIT	**PAPER NUMBER**
2816	

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/697,418	FLEISCHHACKER ET AL.	
	Examiner	Art Unit	
	Minh Nguyen	2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-14 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-14 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 30 October 2003 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 1/22/04.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because the block circuits 1 and 8-10 shown in Fig. 2 do not have text labels. It is suggested that block circuit 1 to be labeled "active filter", block circuit 8 to be labeled "measuring device", ... as described in the specification. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As per claim 5, the specification does not enable any embodiment of a control device which be able to take an ascertain measure of the frequency response and a nominal frequency response set on the circuit arrangement as a basis for selecting a stored adjustment parameter and adjusts the at least one adjustable capacitor on the basis of the selected adjustment parameter as

recited in the claim. In other words, the specification discloses none of such a control device embodiment so that one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the control device. Further, the specification does not enable any embodiment of a circuit to determine a measure of the frequency response of the active filter, i.e., it is unclear how to make and arrange such a circuit to measure of the frequency response of the active filter.

As per claims 6-14, the claims are rejected because of the non-enablement of claim 5.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 5, the recitation a circuit to determine a measure of the frequency response of the active filter includes a memory arrangement on lines 4-6 is misdescriptive because as described in the specification and shown in Fig. 2 of the drawings, the measuring device 8 does not include a memory arrangement as recited. The word "can" on line 5 should be deleted. The recitation on lines 7-10 are unclear and confusing, i.e., it is unclear which circuit is to provide the ascertained measure of the frequency response so that the control device can be "set up to take", it is unclear how a nominal frequency response can be "set on the circuit arrangement" as recited.

As per claim 6, the recitation the at least one adjustable capacitor includes at least one invariable base capacitor does not make sense, i.e., "adjustable capacitor" means variable capacitor so it does not make sense to include invariable capacitor in an adjustable capacitor.

As per claim 8, the word "can" recited on line 2 should be deleted since it is not a positive statement.

As per claim 13, the recitation at least one reference capacitor on line 1 is unclear, i.e., it is unclear which capacitor it is referring to. It appears that the recited at least one reference capacitor is not disclosed in the specification and shown in the drawings.

As per claim 14, the term "standard capacitors" is indefinite because what is considered standard today may not be considered standard tomorrow. The recitation the reference capacitor and the capacitor which determines frequency response has the same value does not make sense, i.e., one is fixed and one is adjustable, they cannot have the same value.

As per claims 6-14, these claims are further rejected because of the indefiniteness of claim 5.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,245,646, issued to Jackson et al.

As per claim 5, Jackson discloses a circuit arrangement for filtering an electrical signal (Figs. 1-3, Fig. 1 is for tuning the frequency response of an active filter and Fig. 3 is an active filter), comprising:

an active filter (Fig. 3) including at least one adjustable capacitor (42, adjusted by controlling switches 90-94) that determines frequency response (it is clear that the overall value of the capacitance of the capacitors determines the frequency response of the active filter 40);

a circuit to determine a measure of the frequency response (Fig. 1, circuits 12 and 14 and 18) which includes memory arrangement (decoder 34, column 7, lines 2, i.e., the decoder 34 may be a memory) which stores a plurality of parameters (Fig. 2) for adjusting the at least one adjustable capacitor (the control signals B0-B4 from the decoder 34); and

a control device (Fig. 1, circuit 32), the counter provides the normalization of the frequency responses, the ascertained frequency response is set by the circuits 12 and 14, the frequency of the clock signal provides the nominal frequency response, and using these parameters for selecting the parameters stored in the decoder 34 and outputting control signals B0-B4 to control the adjustable capacitors of the active filter shown in Fig. 3.

As per claim 6, in sofar as understood, the recited invariable base capacitor reads on capacitor 84 which is invariable, and the recited an adjustable capacitor component reads on the switch 94 which is a component used to control the invariable capacitor 84 so that the overall capacitance of the active filter can be adjustable.

As per claim 7, the capacitors 80-84 and switches 90-94 clearly meet the recited limitations.

As per claim 8, Fig. 2 shows the recited limitation, labels "0" and "1" clearly represent digital values in binary form.

As per claim 9, the recited limitations are met since the truth table shows in Fig. 2 has five inputs and five outputs.

As per claim 10, resistors and capacitors in the active filter 40 shown in Fig. 3 indicate a time constant (i.e., time constant = RC) as the frequency response.

As per claim 11, the truth table shown in Fig. 2 clearly shows the time constants are normalize, i.e., see Fig. 1, the counter using frequency of the clock signal CLOCK for normalization.

As per claim 13, the recited reference capacitor reads on the capacitor 26.

As per claim 14, in sofar as understood, by adjusting the capacitance value of the capacitors of the active filter shown in Fig. 3, there will be one value which is the same as the capacitance value of the capacitor 26.

As per claim 1, this claim is merely a method to operate an active filter circuit having the structure recited in claim 5, since Jackson teaches the circuit, he inherently teaches the method to operate.

As per claims 2-4, these claims are rejected for the same reasons noted in claims 10, 11 and 9, respectively.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,245,646, issued to Jackson et al.

Jackson discloses a circuit arrangement as discussed in claim 5 but he does not explicitly disclose the components of the circuit arrangement are integrated into a semiconductor as called for in the claim.

However, in column 2, lines 1-25 he explicitly discloses the disadvantages of using discrete components versus integrating the circuit into a semiconductor device.

It would have been obvious to one skilled in the art at the time of the invention was made to integrate the components of the Jackson circuit discussed in claim 5 to a semiconductor substrate for the motivation which is to avoid the disadvantages disclosed in column 2, lines 1-25 of the Jackson reference.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Nguyen whose telephone number is 571-272-1748. The examiner can normally be reached on Monday, Tuesday, Thursday, Friday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

5/14/04

Minh Nguyen
Primary Examiner
Art Unit 2816